

WHAT IS CLAIMED IS:

1. An ink jet recording sheet comprising an ink receiving layer provided on a substrate, said ink receiving layer being formed by preparing a layer containing a porous filler and a binder by coating and drying on the substrate and thereafter allowing the layer to be impregnated with a water-soluble cationic organic material, wherein

said layer containing the porous filler and the binder is formed using a coating liquid having a pH of 4 or less;

the amount of the water-soluble cationic organic material contained in said layer containing the porous filler and the binder after the layer is impregnated with the water-soluble cationic organic material is 2% by weight or less in terms of solid ratio to the layer; and

said filler is contained in an amount of 40 to 80% by weight in the total solid of the ink receiving layer.

2. An ink jet recording sheet according to Claim 1, wherein a silanol-modified polyvinyl alcohol is contained as the binder.

3. An ink jet recording sheet according to Claim 1, wherein the water-soluble cationic organic material with which said layer is impregnated is a dicyandiamide condensate.

4. An ink jet recording sheet according to Claim 1, wherein the ink receiving layer contains a hydrate aluminum oxide.

5. An ink jet recording sheet according to Claim 1, wherein the ink receiving layer contains a water-soluble aluminum salt.

6. An ink jet recording sheet comprising an ink receiving layer provided on a substrate, said ink receiving layer being

09941566 083001

44B
AI

Sub B
Cont 2

Sub B1
cont'd

formed by preparing a layer containing a porous filler and a binder by coating and drying on the substrate and thereafter allowing the layer to be impregnated with a water-soluble cationic organic material, wherein

said layer containing the porous filler and the binder is formed using a coating liquid having a pH of 4 or less;

the amount of the water-soluble cationic organic material contained in said layer containing the porous filler and the binder after the layer is impregnated with the water-soluble cationic organic material is 2% by weight or less in terms of solid ratio to the layer;

said filler is contained in an amount of 40 to 80% by weight in the total solid of the ink receiving layer; and

said layer is impregnated with the water-soluble cationic organic material such that the water-soluble cationic organic material is contained in a larger amount in the vicinity of the surface of the ink receiving layer.

7. An ink jet recording sheet according to Claim 6, wherein a silanol-modified polyvinyl alcohol is contained as the binder.

8. An ink jet recording sheet according to Claim 6, wherein the water-soluble cationic organic material with which said layer is impregnated is a dicyandiamide condensate.

9. An ink jet receiving sheet according to Claim 6, wherein the ink receiving layer contains a hydrate aluminum oxide.

10. An ink jet recording sheet according to Claim 6, wherein the ink receiving layer contains a water-soluble aluminum salt.

11. An ink jet recording sheet comprising an ink receiving

Sub B1
cont'd

layer provided on a substrate, said ink receiving layer being formed by preparing a layer containing a porous filler and a binder by coating and drying on the substrate and thereafter allowing the layer to be impregnated with a water-soluble cationic organic material, wherein

said porous filler is silica, which is prepared by mixing silica having an average particle diameter of 5 μ m or less which is measured using a coulter counter method and an oil absorptiveness of 200 to 230 ml/100 g with silica having a larger average diameter than the former silica in a ratio by weight of 100:0 to 50:50; and

said filler is contained in an amount of 40 to 80% by weight in the total solid of the ink receiving layer.

12. An ink jet recording sheet according to Claim 11, wherein the layer containing the porous filler and the binder is formed using a coating liquid having a pH of 4 or less and the amount of the water-soluble organic material contained in the layer containing the porous filler and the binder is 2% by weight or less in terms of solid ratio to the layer.

13. An ink jet recording sheet according to Claim 11, wherein the amount of the water-soluble cationic organic material contained in the layer containing the porous filler and the binder before the layer is impregnated with the water-soluble cationic organic material is 2% by weight or less in terms of solid ratio to the layer.

14. An ink jet recording sheet according to Claim 11, wherein said layer is impregnated with the water-soluble cationic

Sub B1
cont'd
organic material such that the water-soluble cationic organic material is contained in a larger amount in the vicinity of the surface of the ink receiving layer.

15. An ink jet recording sheet according to Claim 14, wherein the amount of the water-soluble cationic organic material contained in the layer containing the porous filler and the binder before the layer is impregnated with the water-soluble cationic organic material is 2% by weight or less in terms of solid ratio to the layer.

16. An ink jet recording sheet according to Claim 11, wherein a silanol-modified polyvinyl alcohol is contained as the binder.

17. An ink jet recording sheet according to Claim 11, wherein the water-soluble cationic organic material with which said layer is impregnated is a dicyandiamide condensate.

18. An ink jet recording sheet according to Claim 11, wherein the ink receiving layer contains a hydrate aluminum oxide.

19. An ink jet recording sheet according to Claim 11, wherein the ink receiving layer contains a water-soluble aluminum salt.

09041666 083001

ADD A² 1